

AD-A058 777 ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/G 4/2
12830C LANCE MISSILE NO. 3338, ROUND NO. 316 ESL.(U)
AUG 78

UNCLASSIFIED

ECOM-DR-975

NL

| OF |
AD
A058 777



END
DATE
FILMED
-11-78
DDC

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

DR-975

AUGUST 1978

AD

LEVEL

12

AD A0 58777

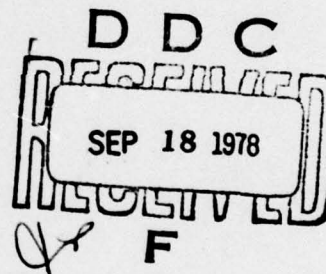
DDC FILE COPY

METEOROLOGICAL DATA REPORT

12830C LANCE
MISSILE NO. 3338, ROUND NO. 316 ESL
(13 JULY 1978)

BY

WSMR METEOROLOGICAL TEAM



ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

78 08 29 069

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

DISPOSITION INSTRUCTIONS

Destroy this report when it is no longer needed. Do not return to the originator.

DISCLAIMER

The findings in this report are not to be construed as an official Department of the Army position, unless so designated by other authorized documents.

The citation of trade names and names of manufacturers in this report is not to be construed as official Government indorsement or approval of commercial products or services referenced herein.

CONTENTS

	PAGE
INTRODUCTION -----	1
DISCUSSION -----	1
TABLES	
I. Surface Observations taken at LC-33 -----	1
II. Pilot-Balloon-Measured Wind Data, Release No. 1 at 0750 HRS MDT -----	2
III. Pilot-Balloon-Measured Wind Data, Release No. 2 at 0800 HRS MDT -----	4
IV. Anemometer-Measured Wind Speed and Direction Pole No. 2 at 0800 HRS MDT -----	6
V. Jallen Significant Level Data (Release Time: 0730 HRS MDT) -----	7
VI. Jallen Upper Air Data (Release Time: 0730 HRS MDT) -----	9
VII. Jallen Mandatory Levels (Release Time: 0730 HRS MDT) -----	16
VIII. WSD Significant Level Data (Release Time: 0750 HRS MDT) -----	17
IX. WSD Upper Air Data (Release Time: 0750 HRS MDT) -----	19
X. WSD Mandatory Levels (Release Time: 0750 HRS MDT) -----	24
XI. SW-70 Significant Level Data (Release Time: 0750 HRS MDT) -----	25
XII. SW-70 Upper Air Data (Release Time: 0750 HRS MDT) -----	27
XIII. SW-70 Mandatory Levels (Release Time: 0750 HRS MDT) -----	33

78 08 29 069

14 UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

ECOM- REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER DR-975	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) 12830C Lance Missile No. 3338, Round No. 316 ESL.	5. TYPE OF REPORT & PERIOD COVERED 17/12	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) WSMR Meteorological Team	8. CONTRACT OR GRANT NUMBER(s) DA Task 1T665702D127/02	9. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS 12/37p.
10. CONTROLLING OFFICE NAME AND ADDRESS US Army Electronics Command Atmospheric Sciences Laboratory White Sands Missile Range, NM	11. REPORT DATE August 1978	12. NUMBER OF PAGES 40
13. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) US Army Electronics Command Ft. Monmouth, New Jersey	14. SECURITY CLASS. (of this report) UNCLASSIFIED	15. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) 1. Ballistics 2. Meteorology 3. Wind		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 12830C Lance, Missile Number 3338, Round Number 316 ESL, are presented in tabular form.		

DD FORM 1 JAN 73 1473

EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

INTRODUCTION

12830C Lance, Missile Number 3338, Round Number 316 ESL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0800 HRS MDT, 13 July 1978. The scheduled launch time was 0800 HRS MDT.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3,977.30	FEET/MSL
PRESSURE	883.3	MBS
TEMPERATURE	24.9	°C
RELATIVE HUMIDITY	56	%
DEW POINT	15.5	°C
DENSITY	1,024	GM/M ³
WIND SPEED/DIREC.	CALM	
CLOUD COVER	1	Ac

TABLE I. SURFACE OBSERVATIONS TAKEN AT LC-33,
0800 HRS MDT/13 July 1978
12830C LANCE, MISSILE NO. 3338, ROUND NO. 316 ESL

ACCESSION for
NTIS
DDC
UNANNOUNCED
PUBLICATION

White Sands
Ball Section

EXEMPTION AVAILABILITY NOTES
and/or SPECIAL

1

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	CALM		2100	289	04.5
100	CALM		2200	271	04.5
200	CALM		2300	277	04.5
300	037	00.5	2400	282	04.5
400	029	01.0	2500	268	04.5
500	027	02.5	2600	253	04.5
600	025	03.5	2700	252	04.5
700	018	05.0	2800	250	04.5
800	011	06.5	2900	259	04.0
900	014	07.0	3000	268	03.5
1000	017	07.5	3100	271	03.5
1100	018	07.0	3200	273	03.5
1200	018	06.0	3300	280	03.5
1300	014	06.0	3400	287	03.5
1400	009	06.0	3500	298	03.5
1500	009	06.5	3600	308	03.0
1600	008	07.0	3700	309	03.0
1700	343	05.5	3800	310	02.5
1800	318	04.0	3900	304	02.5
1900	313	04.5	4000	298	02.5
2000	307	04.5	4100	278	02.5

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-33, AT 0750 HRS MDT/13 JULY 1978
12830C LANCE, MISSILE NO. 3338, ROUND NO. 316 ESL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,037.24 Y = 182,350.16 Z = 3,977.30

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	258	02.0
4300	273	02.0
4400	288	02.0
4500	305	02.5
4600	322	03.0
4700	322	02.5
4800	321	02.0
4900	332	02.0
5000	342	01.5
5100	347	01.5
5200	352	01.5
5300	352	01.5
5400	352	01.5
5500	356	01.5
5600	360	01.5
5700	024	01.5
5800	048	01.5
5900	053	02.0
6000	058	02.5
6100	059	03.0
6200	060	03.0
6300	059	03.0
6400	057	03.0
6500	060	03.0
6600	062	02.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6700	051	02.5
6800	039	02.0
6900	034	02.5
7000	029	02.5
7100	030	03.0
7200	030	03.0
7300	027	04.0
7400	023	04.5
7500	025	05.0
7600	027	05.5
7700	030	05.5
7800	032	05.5
7900	032	07.0
8000	031	08.5
8100	039	08.5
8200	047	08.5
8300	053	09.5
8400	058	10.0
8500	064	09.5
8600	070	09.0
8700	072	09.0
8800	074	09.0
8900	078	08.5
9000	082	08.2

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	CALM	
100	CALM	
200	CALM	
300	CALM	
400	CALM	
500	051	00.5
600	056	00.5
700	051	03.5
800	046	06.5
900	032	06.5
1000	017	06.0
1100	029	08.0
1200	041	10.0
1300	046	08.0
1400	051	06.0
1500	042	05.0
1600	033	03.5
1700	023	04.5
1800	013	05.5
1900	012	04.5
2000	011	03.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
2100	342	03.0
2200	312	02.5
2300	302	04.0
2400	292	05.0
2500	273	05.0
2600	254	05.0
2700	254	06.0
2800	254	06.5
2900	249	06.5
3000	244	06.0
3100	234	06.5
3200	223	06.5
3300	226	06.0
3400	229	05.5
3500	243	04.5
3600	256	03.0
3700	255	03.5
3800	254	03.5
3900	275	02.5
4000	295	01.5
4100	281	02.0

TABLE III.

PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-33, at 0800 HRS MDT/13 JULY 1978
12830C LANCE, MISSILE NO. 3338, ROUND NO. 316 ESL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,037.24 Y = 182,350.16 Z = 3,977.30

APPROXIMATELY: 1 MILE SOUTH OF LAUNCHER.

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	266	02.5
4300	277	03.5
4400	287	04.0
4500	280	04.0
4600	273	03.5
4700	297	03.5
4800	320	03.5
4900	022	02.5
5000	083	01.0
5100	150	02.5
5200	217	03.5
5300	306	02.0
5400	034	00.5
5500	066	01.0
5600	097	01.5
5700	070	01.5
5800	042	01.5
5900	069	02.0
6000	096	02.0
6100	082	03.0
6200	067	03.5
6300	074	04.0
6400	081	04.5
6500	064	05.0
6600	047	05.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6700	047	06.0
6800	046	06.0
6900	037	05.0
7000	027	04.0
7100	041	03.0
7200	055	01.5
7300	039	02.0
7400	023	02.5
7500	031	04.5
7600	039	06.0
7700	028	06.5
7800	017	07.0
7900	021	07.0
8000	025	06.5
8100	028	06.5
8200	030	06.5
8300	036	07.0
8400	042	07.0
8500	047	08.0
8600	052	09.0
8700	056	09.5
8800	059	09.5
8900	068	09.0
9000	076	08.0

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (SEC)	SPEED (MPH)	DIR DEG
-30.0	03	093
-20.0	03	093
-10.0	04	096
-00.00	05	096
+10.00	04	091
+20.00	04	093
+30.00	05	097

TABLE IV. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 2
LAUNCHED FROM LC-33, 0800 HRS MDT/13 JULY 1978
12830C LANCE, MISSILE NO. 3338, ROUND NO. 316 ESL

WSTM COORDINATES: X = 485,874.93 Y = 186,012.00 Z = 4,033.57

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDG

SIGNIFICANT LEVEL DATA
194003009c
JALLEN
TABLE V.

STATION ALTITUDE 4051.00 FEET MSL
13 JULY 78
ASCENSION NO. 98
0730 HRS MDT

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
878.0	4051.0	23.6	13.5	53.0
867.6	4393.9	24.8	10.7	41.0
850.0	4963.9	24.3	9.5	39.0
785.7	7255.3	21.6	5.5	35.0
700.0	10461.0	13.8	2.4	46.0
578.3	15635.0	1.3	-6.0	58.0
552.0	16802.9	-2.3	-5.6	78.0
536.2	17640.6	-3.5	-8.5	68.0
508.3	19022.5	-6.9	-10.9	73.0
500.0	19445.1	-7.4	-13.4	62.0
465.2	21251.4	-11.2	-16.0	64.0
441.4	22599.9	-14.6	-16.8	63.0
434.6	22966.9	-15.0	-18.7	73.0
425.5	23512.1	-16.7	-19.5	79.0
420.4	23810.4	-16.6	-25.2	47.0
405.0	24751.9	-17.5	-31.5	28.0
400.0	25057.6	-18.4	-28.0	40.0
396.0	25264.5	-18.4	-30.0	35.0
389.5	25690.6	-19.0	-26.3	52.0
382.8	26115.3	-19.6	-28.7	44.0
352.4	28120.4	-24.2	-30.3	57.0
338.6	29075.8	-26.1	-36.7	36.0
300.0	31924.1	-32.2	-43.5	32.0
262.6	34909.4	-39.9	-50.4	51.0
250.0	36009.7	-42.5		
200.0	40903.7	-54.8		
184.4	42598.1	-59.2		
150.0	46766.6	-66.9		
136.0	48751.7	-68.3		
111.8	52544.2	-75.2		

STATION ALTITUDE 4051.00 FEET MSL
 13 JULY 78
 ASCENSION NO. 98 0730 HRS MDT

SIGNIFICANT LEVEL DATA
 1940030098
 JALLEN
 TABLE V. (CONT)

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM.
ALTITUDE		AIR DEWPOINT		PERCENT
MILLIBARS	MSL FEET	DEGREES CENTIGRADE		
100.0	54695.7			-71.9
93.0	56104.8			-72.6
70.0	61708.4			-65.7
60.3	64739.0			-60.5
50.0	68591.1			-60.7
30.0	79257.2			-54.3
20.0	87901.1			-49.0
12.3	98738.8			-40.2

THIS PAGE IS BEST QUALITY PRACTICABLE
 FROM COPY FURNISHED TO DDC

STATION ALTITUDE 4051.00 FEET MSL
13 JULY 78 0730 HRS MDT
ASCENSION NO. 98

UPPER AIR DATA
1940030096
JALLEN
TABLE VI.

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
4051.0	876.0	23.6	13.5	53.0	1023.9	673.3	290.0	1.9	1.000295
4500.0	864.4	24.7	10.4	40.6	1005.4	674.2	291.0	2.2	1.000278
5000.0	849.5	24.3	9.4	39.0	989.8	673.7	291.8	2.5	1.000271
5500.0	834.8	23.7	8.6	38.1	974.8	672.9	292.5	2.8	1.000265
6000.0	820.4	23.1	7.7	37.2	960.1	672.1	293.9	3.0	1.000259
6500.0	806.1	22.5	6.8	36.3	945.5	671.4	298.8	2.8	1.000254
7000.0	792.2	21.9	5.9	35.4	931.2	670.6	297.2	2.3	1.000248
7500.0	778.3	21.0	5.3	35.9	917.9	669.6	278.4	1.6	1.000244
8000.0	764.6	19.8	4.9	37.6	905.5	668.2	330.6	.7	1.000240
8500.0	751.1	18.6	4.5	39.3	893.2	666.8	36.3	2.2	1.000236
9000.0	737.9	17.4	4.0	41.0	881.1	665.4	53.6	3.7	1.000233
9500.0	724.9	16.2	3.5	42.7	869.3	664.0	61.7	5.0	1.000229
10000.0	712.1	15.0	2.9	44.4	857.6	662.6	65.4	4.1	1.000226
10500.0	699.5	13.8	2.4	46.0	846.0	661.2	61.7	3.0	1.000222
11000.0	686.7	12.5	1.6	47.2	834.2	659.7	36.1	2.2	1.000218
11500.0	674.2	11.3	.8	48.4	822.6	658.3	18.5	.8	1.000214
12000.0	661.9	10.1	.0	49.5	811.1	656.8	254.6	.8	1.000210
12500.0	649.8	8.9	-.7	50.7	799.8	655.4	246.1	2.0	1.000206
13000.0	637.9	7.7	-1.6	51.9	788.7	653.9	236.9	2.2	1.000202
13500.0	626.2	6.5	-2.4	53.0	777.7	652.5	221.7	2.0	1.000198
14000.0	614.8	5.3	-3.2	54.2	767.0	651.0	224.9	2.4	1.000194
14500.0	603.5	4.1	-4.1	55.4	756.3	649.5	227.7	2.7	1.000191
15000.0	592.5	2.8	-4.9	56.5	745.9	648.1	231.0	3.0	1.000187
15500.0	581.7	1.6	-5.8	57.7	735.6	646.6	217.4	2.8	1.000184
16000.0	570.8	.2	-5.8	63.9	725.4	645.0	186.5	2.9	1.000182
16500.0	560.1	-1.2	-5.6	71.9	715.5	643.3	181.0	3.3	1.000180
17000.0	549.5	-2.5	-6.0	76.5	705.4	641.8	178.2	4.2	1.000177
17500.0	539.1	-3.3	-8.0	69.9	694.3	640.7	169.3	7.2	1.000172
18000.0	528.8	-4.4	-9.1	69.3	683.9	639.4	164.9	9.3	1.000168
18500.0	516.7	-5.6	-10.0	71.1	674.0	637.9	161.4	10.7	1.000165

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

STATION ALTITUDE 4051.00 FEET MSL
13 JULY 78 0730 HRS MDT
ASCENSION NO. 98

UPPER AIR DATA
1940030096
JALLEN (CONT)
TABLE VI.

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
19000.0	508.7	-0.8	-10.9	72.9	664.2	636.4	161.9	9.9	1.000162
19500.0	496.9	-7.5	-13.5	62.1	653.2	635.5	163.4	8.6	1.000157
20000.0	489.2	-8.5	-14.4	62.6	643.1	634.2	166.0	8.1	1.000154
20500.0	479.7	-9.6	-15.3	63.1	633.1	632.9	169.1	7.7	1.000151
21000.0	470.4	-10.6	-16.1	63.7	623.3	631.7	174.0	6.7	1.000148
21500.0	461.2	-11.8	-16.6	67.2	613.8	630.3	180.8	5.8	1.000146
22000.0	452.1	-13.1	-16.6	74.4	604.7	628.7	182.0	5.2	1.000144
22500.0	443.2	-14.3	-16.8	81.6	595.7	627.2	181.7	4.5	1.000142
23000.0	434.4	-15.0	-18.7	73.1	585.6	626.3	173.6	3.5	1.000138
23500.0	425.7	-16.7	-19.4	78.9	577.5	624.3	164.8	2.4	1.000136
24000.0	417.2	-16.8	-26.3	43.1	566.5	624.0	157.5	.9	1.000130
24500.0	408.8	-17.3	-29.7	32.8	556.3	623.3	22.8	.6	1.000127
25000.0	400.6	-18.3	-28.9	38.5	547.3	622.1	5.8	2.0	1.000125
25500.0	392.5	-18.7	-27.9	44.0	537.1	621.6	.6	3.4	1.000123
26000.0	384.6	-19.4	-28.0	46.2	527.8	620.7	358.3	4.8	1.000121
26500.0	376.8	-20.5	-28.9	46.5	519.2	619.4	1.5	5.5	1.000119
27000.0	369.1	-21.6	-29.3	49.7	510.9	618.0	3.7	6.2	1.000117
27500.0	361.5	-22.8	-29.7	53.0	502.8	616.6	4.8	6.8	1.000115
28000.0	354.2	-23.9	-30.1	56.2	494.8	615.2	6.0	6.9	1.000113
28500.0	346.9	-25.0	-32.6	48.7	486.6	613.9	7.9	6.1	1.000111
29000.0	339.7	-25.9	-36.1	37.7	478.5	612.6	16.9	5.2	1.000108
29500.0	332.6	-27.0	-37.6	35.4	470.5	611.3	43.5	5.0	1.000106
30000.0	325.6	-28.1	-38.8	34.7	462.7	609.9	63.5	5.8	1.000104
30500.0	318.7	-29.2	-40.0	34.0	454.9	608.6	70.9	7.0	1.000103
31000.0	312.0	-30.2	-41.1	33.3	447.3	607.3	74.9	7.8	1.000101
31500.0	305.5	-31.3	-42.3	32.6	439.9	605.9	76.5	7.9	1.000099
32000.0	299.0	-32.4	-43.4	32.0	432.6	604.5	75.8	7.7	1.000097
32500.0	292.5	-33.7	-44.6	31.8	425.5	602.9	72.8	7.4	1.000096
33000.0	286.2	-34.9	-45.8	31.6	418.5	601.3	70.6	6.4	1.000094
33500.0	280.0	-36.2	-47.0	31.5	411.6	599.7	68.8	5.1	1.000092

STATION ALTITUDE 4051.00 FEET MSL
 13 JULY 78
 ASCENSION NO. 98 0730 HRS MDT

UPPER AIR DATA
 1940030096
 CALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE VI. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
34000.0	274.0	-37.4	31.3	404.9	598.1	69.3	3.6	1.000091
34500.0	268.0	-38.7	31.2	396.3	596.5	73.1	2.0	1.000089
35000.0	262.2	-40.0	30.1**	391.8	594.9	47.2	1.4	1.000088
35500.0	256.4	-41.2	16.1**	385.1	593.4	10.3	1.6	1.000086
36000.0	250.8	-42.3	2.0**	376.5	591.9	7.1	3.5	1.000084
36500.0	245.1	-43.6		371.9	590.3	8.0	5.8	1.000083
37000.0	239.5	-44.9		365.5	588.6	10.6	8.0	1.000081
37500.0	234.0	-46.1		359.1	587.0	12.6	10.1	1.000080
38000.0	228.7	-47.4		352.9	585.3	19.4	10.1	1.000079
38500.0	223.5	-48.7		346.8	583.7	29.0	9.6	1.000077
39000.0	218.4	-50.0		340.8	582.0	37.1	8.6	1.000076
39500.0	213.4	-51.2		335.0	580.4	46.1	7.5	1.000075
40000.0	208.5	-52.5		329.2	578.7	47.6	6.8	1.000073
40500.0	203.8	-53.8		323.6	577.0	41.4	6.5	1.000072
41000.0	199.1	-55.1		318.0	575.3	34.2	6.0	1.000071
41500.0	194.4	-56.3		312.3	573.6	24.2	5.3	1.000070
42000.0	189.8	-57.6		306.8	571.9	13.3	4.9	1.000068
42500.0	185.3	-58.9		301.3	570.2	12.6	5.6	1.000067
43000.0	180.6	-59.9		295.4	568.9	12.5	6.4	1.000066
43500.0	176.4	-60.9		289.4	567.6	26.6	6.7	1.000064
44000.0	172.1	-61.8		283.6	566.4	40.5	7.3	1.000063
44500.0	167.9	-62.7		277.9	565.2	53.0	6.8	1.000062
45000.0	163.8	-63.6		272.3	563.9	70.4	5.7	1.000061
45500.0	159.8	-64.5		266.9	562.7	86.0	5.0	1.000059
46000.0	155.9	-65.5		261.5	561.4	91.0	3.9	1.000058
46500.0	152.1	-66.4		256.3	560.2	99.0	2.9	1.000057
47000.0	148.4	-67.1		250.8	559.3	93.2	2.1	1.000056
47500.0	144.7	-67.4		245.0	558.8	80.6	1.3	1.000055
48000.0	141.1	-67.8		239.3	558.3	105.8	1.2	1.000053
48500.0	137.6	-68.1		233.8	557.8	132.1	1.6	1.000052

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
1940030090
JALLET
TABLE VI. (CONT)

STATION ALTITUDE 4051.00 FEET MSL
13 JULY 78
ASCENSION NO. 98

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
49000.0	134.1	-68.8		226.7	556.9	123.2	1.8	1.000051
49500.0	130.7	-69.7		223.8	555.7	94.1	2.0	1.000050
50000.0	127.4	-70.6		219.1	554.5	76.7	3.4	1.000049
50500.0	124.2	-71.5		214.5	553.2	73.4	6.6	1.000048
51000.0	121.0	-72.4		210.0	552.0	72.2	9.8	1.000047
51500.0	118.0	-73.3		205.6	550.7	86.9	12.0	1.000046
52000.0	115.0	-74.2		201.3	549.5	96.6	14.8	1.000045
52500.0	112.1	-75.1		197.1	548.2	108.7	15.1	1.000044
53000.0	109.2	-74.5		191.5	549.1	126.2	14.3	1.000043
53500.0	106.4	-73.7		185.9	550.1	143.3	14.3	1.000041
54000.0	103.7	-73.0		180.4	551.2	160.9	11.1	1.000040
54500.0	101.0	-72.2		175.1	552.3	187.6	9.6	1.000039
55000.0	98.4	-72.1		170.5	552.5	211.5	5.4	1.000038
55500.0	95.9	-72.3		166.4	552.1	303.0	3.6	1.000037
56000.0	93.5	-72.5		162.4	551.8	350.8	7.3	1.000036
56500.0	91.2	-72.1		158.0	552.4	33.9	10.7	1.000035
57000.0	88.9	-71.5		153.5	553.2	51.0	16.9	1.000034
57500.0	86.6	-70.9		149.2	554.1	66.2	18.3	1.000033
58000.0	84.5	-70.3		145.1	554.9	81.4	19.7	1.000032
58500.0	82.4	-69.7		141.0	555.7	91.8	20.6	1.000031
59000.0	80.3	-69.0		137.1	556.6	98.2	18.9	1.000031
59500.0	78.3	-68.4		133.2	557.4	105.6	17.4	1.000030
60000.0	76.3	-67.8		129.5	558.3	102.1	18.3	1.000029
60500.0	74.4	-67.2		125.9	559.1	97.5	19.7	1.000028
61000.0	72.6	-66.6		122.4	559.9	94.7	20.5	1.000027
61500.0	70.7	-66.0		118.9	560.8	93.4	20.3	1.000026
62000.0	69.0	-65.2		115.6	561.8	92.2	20.2	1.000026
62500.0	67.3	-64.3		112.3	562.9	94.5	18.3	1.000025
63000.0	65.7	-63.5		109.1	564.1	97.5	16.5	1.000024
63500.0	64.1	-62.6		106.1	565.3	96.3	15.7	1.000024

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

STATION ALTITUDE 4051.00 FEET MSL
13 JULY 78
ASCENSION NO. 98

UPPER AIR DATA
1940030096
JALLEN
TABLE VI. (CONT)

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
04000.0	62.5	-61.8		103.1	560.4	92.4	15.5	1.000023
04500.0	61.0	-60.9		100.1	567.6	88.7	15.6	1.000022
05000.0	59.5	-60.5		97.5	568.1	87.1	16.3	1.000022
05500.0	58.1	-60.5		95.2	568.1	85.7	17.1	1.000021
06000.0	56.7	-60.6		92.9	568.0	84.8	17.7	1.000021
06500.0	55.4	-60.6		90.7	568.0	85.1	17.9	1.000020
07000.0	54.0	-60.6		88.5	567.9	85.5	18.2	1.000020
07500.0	52.7	-60.6		86.4	567.9	85.7	18.4	1.000019
08000.0	51.5	-60.7		84.4	567.9	85.6	18.6	1.000019
08500.0	50.2	-60.7		82.3	567.8	85.5	18.9	1.000018
09000.0	49.0	-60.5		80.3	568.2	87.3	19.2	1.000018
09500.0	47.9	-60.2		78.3	568.6	91.3	19.5	1.000017
10000.0	46.7	-59.9		76.3	569.0	95.1	19.9	1.000017
10500.0	45.6	-59.6		74.4	569.4	99.1	20.4	1.000017
11000.0	44.6	-59.3		72.6	569.8	103.2	21.1	1.000016
11500.0	43.5	-59.0		70.7	570.2	107.0	21.8	1.000016
12000.0	42.5	-58.7		69.0	570.6	104.3	22.1	1.000015
12500.0	41.5	-58.4		67.2	571.0	100.6	22.4	1.000015
13000.0	40.5	-58.1		65.6	571.4	96.2	22.7	1.000015
13500.0	39.5	-57.8		63.9	571.8	89.2	23.4	1.000014
14000.0	38.6	-57.5		62.3	572.2	82.6	24.4	1.000014
14500.0	37.7	-57.2		60.8	572.6	80.5	25.4	1.000014
15000.0	36.8	-56.9		59.2	573.0	81.3	26.2	1.000013
15500.0	35.9	-56.6		57.8	573.4	82.1	27.0	1.000013
16000.0	35.1	-56.3		56.3	573.7	83.3	28.0	1.000013
16500.0	34.2	-56.0		54.9	574.1	84.5	29.0	1.000012
17000.0	33.4	-55.7		53.5	574.5	85.2	30.0	1.000012
17500.0	32.6	-55.4		52.2	574.9	85.3	30.9	1.000012
18000.0	31.9	-55.1		50.9	575.3	85.3	31.9	1.000011
18500.0	31.1	-54.8		49.6	575.7	86.3	31.8	1.000011

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDG

STATION ALTITUDE 4051.00 FEET MSL
13 JULY 78
ASCENSION IS. 98

UPPER AIR DATA
1940030098
JALLEN
TABLE VI. (CONT)

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE						
79000.0	30.4	-54.5			48.4	576.1	87.6	31.2	1.000011
79500.0	29.7	-54.2			47.2	576.5	89.4	30.6	1.000011
80000.0	29.0	-53.8			46.0	576.9	90.0	30.8	1.000010
80500.0	28.3	-53.5			44.9	577.3	90.5	31.1	1.000010
81000.0	27.7	-53.2			43.8	577.7	91.0	31.5	1.000010
81500.0	27.0	-52.9			42.7	578.1	91.5	32.1	1.000010
82000.0	26.4	-52.6			41.7	578.5	92.0	32.7	1.000009
82500.0	25.8	-52.3			40.7	578.9	92.4	33.2	1.000009
83000.0	25.2	-52.0			39.7	579.3	92.9	33.2	1.000009
83500.0	24.6	-51.7			38.7	579.7	93.3	33.2	1.000009
84000.0	24.1	-51.4			37.8	580.1	93.4	33.6	1.000008
84500.0	23.5	-51.1			36.9	580.5	93.2	34.4	1.000008
85000.0	23.0	-50.8			36.0	580.9	93.0	35.2	1.000008
85500.0	22.4	-50.5			35.1	581.3	93.3	35.7	1.000008
86000.0	21.9	-50.2			34.2	581.7	93.7	36.2	1.000008
86500.0	21.4	-49.9			33.4	582.1	94.2	36.7	1.000007
87000.0	20.9	-49.6			32.6	582.5	94.3	37.2	1.000007
87500.0	20.4	-49.3			31.8	582.9	94.5	37.8	1.000007
88000.0	20.0	-49.0			31.0	583.3	94.6	38.4	1.000007
88500.0	19.5	-48.6			30.3	583.8	94.1	39.0	1.000007
89000.0	19.1	-48.2			29.5	584.4	93.6	39.6	1.000007
89500.0	18.7	-47.7			28.8	584.9	93.4	40.2	1.000006
90000.0	18.2	-47.3			28.1	585.4	93.9	40.8	1.000006
90500.0	17.8	-46.9			27.5	586.0	94.3	41.4	1.000006
91000.0	17.4	-46.5			26.8	586.5	93.8	41.1	1.000006
91500.0	17.0	-46.1			26.2	587.0	91.6	39.5	1.000006
92000.0	16.7	-45.7			25.5	587.5	89.2	37.9	1.000006
92500.0	16.3	-45.3			24.9	588.1	86.2	36.3	1.000006
93000.0	15.9	-44.9			24.3	588.6	82.7	34.8	1.000005
93500.0	15.6	-44.5			23.7	589.1	78.6	33.3	1.000005

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

STATION ALTITUDE 4051.00 FEET MSL
13 JULY 78
ASCENSION NO. 93

UPPER AIR DATA
19400300Z
JALLEN
TABLE VI. (CONT)

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION IN DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
94000.0	15.2	-44.1		23.2	589.0	76.0	32.9	1.000005
94500.0	14.9	-43.7		22.6	590.2	75.3	32.8	1.000005
95000.0	14.6	-43.3		22.1	590.7	73.9	32.8	1.000005
95500.0	14.2	-42.8		21.5	591.2	72.4	32.6	1.000005
96000.0	13.9	-42.4		21.0	591.7	70.9	32.3	1.000005
96500.0	13.6	-42.0		20.5	592.3			1.000005
97000.0	13.3	-41.6		20.0	592.6			1.000004
97500.0	13.0	-41.2		19.5	593.3			1.000004
98000.0	12.7	-40.8		19.1	593.8			1.000004
98500.0	12.4	-40.4		18.0	594.4			1.000004

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

STATION ALTITUDE 4051.00 FEET MSL
13 JULY 78
ASCENSION A.C. 38 0730 HRS MDT

MANDATORY LEVELS
1940030096
JALLEN
TABLE VII.

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LONG DEG

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
850.0	4981.	24.3	9.5	39.	291.8	2.5	
800.0	6710.	22.2	6.4	30.	301.2	2.7	
750.0	8540.	18.5	4.4	39.	37.8	2.4	
700.0	10471.	13.8	2.4	40.	62.6	3.1	
650.0	12505.	8.9	-7	51.	240.1	2.1	
600.0	14661.	3.7	-4.3	50.	226.9	2.8	
550.0	16957.	-2.4	-6.0	77.	179.1	4.0	
500.0	19419.	-7.4	-13.4	62.	163.2	6.7	
450.0	22084.	-13.4	-16.7	70.	182.4	5.1	
400.0	24997.	-18.4	-28.0	40.	5.0	2.0	
350.0	28234.	-24.5	-31.2	53.	7.0	6.5	
300.0	31662.	-32.2	-43.3	32.	76.3	7.8	
250.0	35992.	-42.5			7.3	3.8	
200.0	40800.	-54.8			30.1	0.2	
175.0	43564.	-61.2			31.2	0.8	
150.0	46662.	-68.9			90.4	2.4	
125.0	50243.	-71.3			73.9	5.7	
100.0	54529.	-71.9			196.8	9.3	
80.0	58850.	-68.9			98.5	16.8	
70.0	61500.	-65.7			92.9	20.3	
60.0	64610.	-60.5			67.7	10.0	
50.0	68337.	-60.7			85.5	10.9	
40.0	72922.	-57.9			93.7	22.9	
30.0	78923.	-54.3			88.5	30.9	
25.0	82770.	-51.9			92.9	33.2	
20.0	87553.	-49.0			94.7	38.3	
15.0	93522.	-43.8			75.9	32.9	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDG

SIGNIFICANT LEVEL DATA
1940060432
WHITE SANDS
TABLE VIII.

STATION ALTITUDE 3609.00 FEET MSL
13 JULY 73 0750 HRS MDT
ASCENS. IN. 402

PRESSURE GEOMETRIC ALTITUDE MILLIBARS MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE		REL. HUM. PERCENT
586.1	3909.0	25.7	44.0
550.0	4094.7	25.1	9.0
754.0	6417.0	19.4	4.4
700.0	10498.7	14.1	2.7
586.0	15245.0	3.3	-5.0
528.6	18053.8	-3.2	-8.2
500.0	19495.5	-5.8	-19.0
482.4	20416.2	-7.4	-30.2
467.2	21233.5	-9.3	-19.8
436.4	22843.4	-12.2	-26.5
417.4	24073.5	-14.4	-22.7
415.4	24193.3	-14.9	-20.7
410.8	24470.5	-15.2	-26.9
402.7	24905.0	-16.0	-34.0
400.0	25131.7	-16.4	-25.0
378.0	26523.5	-19.9	-23.5
347.2	28522.6	-24.2	-34.4
335.6	29395.9	-25.8	-32.1
324.0	30233.3	-26.9	-37.7
300.0	32045.4	-31.2	-39.6
260.6	35257.9	-39.5	-46.0
250.0	36206.3	-41.6	
210.6	39955.0	-51.5	
200.0	41034.4	-53.7	
190.2	42116.5	-54.6	
150.0	47005.0	-65.0	
130.6	49777.9	-67.2	
107.0	53601.5	-73.7	
100.0	54943.0	-71.5	
70.0	62032.3	-65.4	

GEODETIC COORDINATES
 32.40043 LAT DEG
 106.37033 LON DEG

THIS PAGE IS BEST QUALITY PRACTICABLE
 FROM COPY FURNISHED TO DDC

SIGNIFICANT LEVEL DATA

1940020432

WHITE SANDS

TABLE VIII. (CONT)

STATION ALTITUDE 2999.00 FEET MSL
 13 JULY 78 0750 HRS MDT
 ASCENSION NO. 432

PRESSURE	GEOMETRIC ALTITUDE	TEMPERATURE AIR	DEWPOINT DEGREES	REL. HUM. PERCENT
65.4	64008.8	-60.3		
56.0	63045.9	-61.3		
38.8	74219.1	-55.4		

UPPER AIR DATA
1940020432
WHITE SAIGON
TABLE IX.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

STATION ALTITUDE 9999.00 FEET MSL
13 JULY 73
ASCENSION NO. 432 0750 HRS MDT

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND M/SEC	WIND DATA DIRECTION (IN) DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
989.0	860.1	25.7	51.0	1010.5	675.9	.0	.0	1.000299
4000.0	279.6	25.7	50.9	1010.1	675.9	.7	.0	1.000298
4500.0	304.7	25.4	44.4	1002.0	675.3	.7	.7	1.000285
5000.0	349.8	25.1	38.0	987.3	674.6	.7	1.5	1.000272
5500.0	335.1	24.3	37.9	975.1	673.0	.7	2.2	1.000266
6000.0	320.6	23.4	37.7	959.1	672.6	317.5	2.2	1.000261
6500.0	300.4	22.6	37.6	945.2	671.0	270.5	4.0	1.000255
7000.0	292.4	21.8	37.4	931.0	670.0	262.2	4.2	1.000250
7500.0	278.0	20.9	37.3	916.2	669.0	257.5	3.9	1.000245
8000.0	265.1	20.1	37.1	903.0	668.0	273.2	2.3	1.000240
8500.0	251.8	19.2	37.4	892.1	667.5	310.9	1.4	1.000236
9000.0	230.5	17.9	39.5	880.2	660.0	2.4	1.7	1.000232
9500.0	225.4	16.6	41.7	868.4	604.6	38.3	2.1	1.000229
10000.0	212.6	15.4	43.8	856.9	663.1	60.0	2.9	1.000226
10500.0	200.0	14.1	46.0	845.5	661.6	69.5	3.3	1.000222
11000.0	187.2	13.0	46.6	833.0	660.2	69.5	3.5	1.000218
11500.0	174.7	11.8	47.3	821.0	658.9	53.3	3.9	1.000214
12000.0	162.4	10.7	47.9	810.2	657.5	49.8	4.6	1.000210
12500.0	150.4	9.5	48.5	798.8	656.1	64.2	5.6	1.000205
13000.0	138.5	8.4	49.2	787.5	654.8	80.8	6.5	1.000201
13500.0	126.9	7.3	49.8	776.4	653.4	90.7	7.9	1.000197
14000.0	115.5	6.1	50.4	765.5	652.0	99.4	8.3	1.000194
14500.0	104.2	5.0	51.1	754.8	650.6	100.7	8.5	1.000190
15000.0	93.3	3.9	51.7	744.2	649.3	90.0	8.3	1.000186
15500.0	82.3	2.7	53.5	733.5	647.9	91.1	8.2	1.000183
16000.0	71.4	1.6	56.3	722.8	646.5	80.5	8.6	1.000180
16500.0	60.7	.4	59.1	712.2	645.1	83.6	8.9	1.000178
17000.0	50.1	-.8	62.0	701.9	643.8	83.4	9.0	1.000175
17500.0	39.6	-1.9	64.8	691.7	642.4	83.0	7.9	1.000172
18000.0	29.7	-3.1	67.7	681.0	641.0	101.4	6.4	1.000169

STATION ALTITUDE 3959.00 FEET MSL
13 JULY 78
ASCENSION NO. 432

0750 HRS MDT

UPPER AIR DATA
1940020432
WHITE SANDS
TABLE IX. (CONT)

GEODETTIC COORDINATES
32.40043 LAT DEG
106.57033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
13500.0	519.6	-4.0	56.9	671.2	639.7	125.9	5.2	1.000163
19000.0	509.7	-4.9	44.4	661.0	636.5	154.1	5.2	1.000157
19500.0	499.9	-5.6	31.9	650.6	637.3	161.5	5.8	1.000152
20000.0	490.3	-6.7	22.1	640.5	636.1	165.8	6.2	1.000147
20500.0	480.8	-7.6	16.9	630.5	635.0	166.8	6.1	1.000144
21000.0	471.5	-8.3	34.0	620.7	633.7	165.5	6.0	1.000144
21500.0	462.3	-9.6	39.8	610.9	632.5	159.2	5.7	1.000142
22000.0	453.5	-10.7	35.8	601.1	631.4	150.1	5.0	1.000139
22500.0	444.4	-11.6	31.8	591.5	630.3	130.4	3.8	1.000136
23000.0	435.7	-12.5	31.5	581.9	629.2	103.1	3.0	1.000134
23500.0	427.1	-13.4	39.7	572.5	628.1	66.1	2.5	1.000132
24000.0	418.6	-14.3	47.8	562.8	627.1	43.9	2.8	1.000131
24500.0	410.3	-15.2	34.9	553.9	625.8	38.2	3.0	1.000127
25000.0	402.1	-16.1	24.1	544.7	624.7	31.2	3.6	1.000124
25500.0	394.1	-17.3	53.6	536.1	623.4	25.7	4.4	1.000124
26000.0	386.1	-18.5	62.6	527.8	621.9	28.4	5.2	1.000123
26500.0	378.4	-19.7	71.6	519.7	620.4	32.1	5.8	1.000121
27000.0	370.6	-20.8	64.1	511.3	619.1	37.0	4.5	1.000118
27500.0	363.1	-21.9	55.9	503.1	617.7	47.4	3.2	1.000116
28000.0	355.7	-23.0	47.6	495.0	616.4	69.0	4.1	1.000113
28500.0	348.4	-24.0	39.4	487.0	615.0	78.5	5.7	1.000111
29000.0	341.2	-25.0	46.7	478.8	613.8	76.4	8.7	1.000109
29500.0	334.1	-25.9	52.5	470.6	612.7	74.7	10.4	1.000107
30000.0	327.2	-26.6	40.6	462.1	611.8	72.3	10.7	1.000105
30500.0	320.4	-27.5	36.2	454.2	610.6	69.8	9.9	1.000103
31000.0	313.6	-28.7	39.4	446.9	609.2	66.0	8.3	1.000101
31500.0	307.6	-29.9	40.6	439.0	607.7	60.2	7.3	1.000099
32000.0	300.6	-31.1	42.6	432.5	606.2	51.5	6.5	1.000098
32500.0	294.1	-32.4	42.0	425.4	604.6	42.8	6.7	1.000096
33000.0	287.6	-33.7	40.9	418.5	602.9	35.7	7.2	1.000094

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

STATION ALTITUDE 3939.00 FEET MSL
13 JULY 78
ASCENSION I.O. 452 0750 HRS MDT

UPPER AIR DATA
1940020432
WHITE SANDS
TABLE IX. (CONT)

GEODEIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
33500.0	261.6	-35.0	39.8	411.7	601.3	28.9	6.8	1.000093
34000.0	275.5	-36.3	38.7	405.1	599.7	21.2	6.3	1.000091
34500.0	269.6	-37.5	37.7	398.5	595.0	23.5	6.4	1.000089
35000.0	263.7	-38.3	36.6	392.1	590.4	25.8	6.6	1.000088
35500.0	258.0	-40.1	26.0**	365.0	594.8	25.0	6.8	1.000086
36000.0	252.3	-41.3	7.6**	379.1	593.2	25.1	7.1	1.000085
36500.0	246.7	-42.6		372.7	591.0	25.9	7.5	1.000083
37000.0	241.1	-43.9		366.3	589.3	27.1	8.0	1.000082
37500.0	235.6	-45.1		360.0	588.3	26.4	8.2	1.000080
38000.0	230.3	-46.4		353.9	586.0	24.9	8.2	1.000079
38500.0	225.1	-47.7		347.9	584.9	15.9	7.8	1.000077
39000.0	220.0	-49.0		342.0	583.2	359.3	7.4	1.000076
39500.0	215.0	-50.3		336.4	581.5	348.1	8.8	1.000075
40000.0	210.2	-51.6		330.4	579.9	343.2	11.0	1.000074
40500.0	205.3	-52.6		324.2	578.6	349.9	12.6	1.000072
41000.0	200.5	-53.6		316.1	577.3	.0	14.1	1.000071
41500.0	195.8	-54.1		311.4	576.0	10.0	14.6	1.000069
42000.0	191.3	-54.5		304.7	575.1	22.1	15.1	1.000068
42500.0	186.7	-55.4		298.7	574.9	30.4	13.7	1.000067
43000.0	182.2	-56.5		293.0	573.5	40.1	12.2	1.000065
43500.0	177.6	-57.5		287.4	572.0	52.0	11.2	1.000064
44000.0	173.6	-58.6		281.8	570.6	65.5	10.8	1.000063
44500.0	169.4	-59.7		276.5	569.2	68.9	10.2	1.000062
45000.0	165.4	-60.7		271.2	567.8	69.6	9.6	1.000060
45500.0	161.4	-61.8		266.0	566.4	71.2	8.7	1.000059
46000.0	157.5	-62.9		260.9	564.9	73.7	7.7	1.000058
46500.0	153.7	-63.9		256.0	563.5	78.3	6.9	1.000057
47000.0	150.1	-65.0		251.1	562.1	80.2	6.3	1.000056
47500.0	146.4	-65.4		245.4	561.5	94.9	5.9	1.000055
48000.0	142.7	-65.8		239.8	561.0	100.0	5.9	1.000053

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

STATION ALTITUDE 399.00 FEET MSL
13 JULY 78
ASCENSION NO. 432

UPPER AIR DATA
1940020432
WHITE SANDS
TABLE IX. (XONT)

GEODETIC COORDINATES
32.4J043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CM ³ METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE				DIRECTION DEGREES(TN)	SPEED KNOTS	
48500.0	139.2	-66.2			234.3	560.5	105.0	6.0	1.000052
49000.0	135.8	-66.6			229.0	559.9	109.7	5.8	1.000051
49500.0	132.4	-67.0			225.8	559.4	114.0	5.7	1.000050
50000.0	129.1	-67.6			218.8	558.0	113.4	5.1	1.000049
50500.0	125.9	-68.4			214.2	557.4	105.0	4.2	1.000048
51000.0	122.7	-69.2			209.0	556.3	92.8	5.9	1.000047
51500.0	119.6	-70.1			205.2	555.2	80.2	9.0	1.000046
52000.0	116.6	-70.9			200.8	554.0	93.9	12.5	1.000045
52500.0	113.7	-71.7			196.0	552.9	102.1	16.4	1.000044
53000.0	110.8	-72.6			192.4	551.8	110.7	18.9	1.000043
53500.0	108.0	-73.4			188.3	550.8	121.0	20.4	1.000042
54000.0	105.3	-73.2			183.4	550.9	129.4	21.1	1.000041
54500.0	102.6	-72.3			177.9	552.1	132.2	18.6	1.000040
55000.0	100.0	-71.5			172.7	553.2	131.2	14.9	1.000038
55500.0	97.5	-71.1			168.0	553.8	97.2	8.9	1.000037
56000.0	95.0	-70.6			163.5	554.4	49.2	9.3	1.000036
56500.0	92.7	-70.2			159.1	555.0	45.6	10.7	1.000035
57000.0	90.4	-69.8			154.6	555.6	47.4	11.5	1.000034
57500.0	88.1	-69.3			150.0	556.2	69.7	10.6	1.000034
58000.0	85.9	-68.3			146.5	556.8	91.0	11.4	1.000033
58500.0	83.8	-68.5			142.0	557.4	88.5	12.5	1.000032
59000.0	81.7	-68.0			138.7	557.9	86.4	13.6	1.000031
59500.0	79.6	-67.6			135.0	558.5	83.9	15.5	1.000030
60000.0	77.6	-67.2			131.3	559.1	81.9	17.5	1.000029
60500.0	75.7	-66.7			127.8	559.7	62.9	21.5	1.000028
61000.0	73.8	-66.3			124.3	560.3	84.2	26.3	1.000028
61500.0	72.0	-65.9			121.0	560.9	87.2	27.7	1.000027
62000.0	70.2	-65.4			117.7	561.5	93.0	24.9	1.000026
62500.0	68.5	-64.3			114.2	563.1	102.0	22.3	1.000025
63000.0	66.8	-63.0			110.6	564.8	114.5	18.4	1.000025

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

UPPER AIR DATA
1940020432
WHITE SANDS
TABLE IX. (CONT)

STATION ALTITUDE 3939.00 FEET MSL
13 JULY 76
ASCENSION NO. 432

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
03500.0	95.2	-61.7		107.4	566.5	132.4	15.8	1.000024
04000.0	93.6	-60.5		104.2	568.1	135.1	16.0	1.000023
04500.0	92.1	-60.4		101.6	568.3	133.4	16.7	1.000023
05000.0	90.6	-60.5		99.2	568.1	130.8	16.1	1.000022
05500.0	89.1	-60.6		96.9	569.0	125.5	14.1	1.000022
06000.0	87.7	-60.7		94.6	567.8	117.4	12.5	1.000021
06500.0	86.3	-60.8		92.4	567.7	99.5	12.5	1.000021
07000.0	85.0	-60.9		90.2	567.6	83.3	13.8	1.000020
07500.0	83.6	-61.0		88.1	567.4	76.4	17.0	1.000020
08000.0	82.4	-61.1		86.0	567.3	72.8	20.8	1.000019
08500.0	81.1	-61.2		84.0	567.2	71.9	23.9	1.000019
09000.0	79.9	-61.2		82.0	567.1	74.5	25.4	1.000018
09500.0	78.7	-60.7		79.8	567.9	76.9	26.9	1.000018
70000.0	47.5	-60.1		77.7	568.6	78.9	26.8	1.000017
70500.0	46.4	-59.6		75.7	569.4	81.0	26.2	1.000017
71000.0	45.3	-59.0		73.7	570.1	83.3	25.7	1.000016
71500.0	44.2	-58.4		71.7	570.8	87.3	25.6	1.000016
72000.0	43.2	-57.9		69.9	571.0	91.2	25.5	1.000016
72500.0	42.1	-57.3		68.0	572.3			1.000015
73000.0	41.1	-56.8		66.2	573.1			1.000015
73500.0	40.2	-56.2		64.5	573.8			1.000014
74000.0	39.2	-55.0		62.8	574.6			1.000014

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDG

STATION ALTITUDE 2989.00 FEET MSL
13 JULY 73
ASCENSION NO. 432

MANDATORY LEVELS
1940020432
WHITE SANDS
TABLE X.

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

THIS PAGE IS BEST QUALITY PRACTICABLE
FROM COPY FURNISHED TO DDC

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
550.0	4991.	25.1	9.0	35.	.7	1.5	
800.0	6725.	22.2	7.0	37.	205.0	4.3	
750.0	8500.	19.0	4.3	30.	323.4	1.4	
700.0	10480.	14.1	2.7	40.	69.5	3.3	
650.0	12525.	9.5	-0.8	49.	64.9	5.6	
600.0	14687.	4.6	-4.0	51.	98.9	3.4	
550.0	16993.	-0.8	-7.1	02.	63.4	9.0	
500.0	19460.	-5.6	-19.6	32.	161.3	3.8	
450.0	22150.	-11.0	-23.6	34.	144.5	4.6	
400.0	25029.	-15.4	-25.0	47.	29.0	3.8	
350.0	28337.	-23.8	-33.2	41.	79.3	4.9	
300.0	31980.	-31.2	-39.6	43.	50.7	6.5	
250.0	36120.	-41.6			25.1	7.2	
200.0	40950.	-53.7			.0	14.3	
175.0	43740.	-58.2			01.0	10.8	
150.0	46879.	-65.0			86.0	0.3	
125.0	50495.	-68.6			103.7	4.0	
100.0	54621.	-71.5			132.4	15.5	
80.0	59180.	-67.7			84.0	14.0	
70.0	61837.	-65.4			94.1	24.8	
60.0	64960.	-60.5			129.1	15.4	
50.0	68594.	-61.3			74.1	25.1	
40.0	73200.	-50.1					

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
33.36888 LAT DEG
106.40406 LON DEG

SIGNIFICANT LEVEL DATA
1940230005
SW 70
TABLE XI.

STATION ALTITUDE 4395.50 FEET MSL
13 JULY 78
ASCENSION NO. 5
0750 HRS MDT

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM. PERCENT
MILLIBARS	ALTITUDE MSL FEET	AIR DEGREES	DEWPOINT CENTIGRADE	
868.6	4395.5	27.0	11.9	39.0
850.0	5022.4	25.5	9.3	36.0
831.0	5673.6	24.0	9.2	39.0
819.8	6063.8	24.5	7.6	34.0
765.4	8027.4	21.0	5.4	36.0
700.0	10540.0	14.9	3.1	45.0
558.2	16675.4	.0	-6.0	64.0
531.6	17955.9	-3.1	-6.0	80.0
522.8	18390.3	-4.1	-8.7	70.0
500.0	19542.0	-7.0	-10.7	75.0
488.8	20122.5	-8.4	-11.5	78.0
472.2	21002.3	-10.1	-14.3	71.0
464.0	21446.4	-10.7	-18.0	55.0
448.0	22332.1	-12.3	-17.5	65.0
400.0	25162.5	-16.1	-27.7	36.0
387.0	25978.1	-18.2	-27.9	42.0
372.6	26907.1	-20.1	-25.5	62.0
337.6	29289.6	-25.4	-33.6	46.0
317.8	30727.0	-27.7	-40.5	28.0
300.0	32082.3	-31.0	-44.1	26.0
268.2	34661.1	-38.1	-48.6	31.0
250.0	36241.0	-42.1		
200.0	41085.8	-54.2		
171.0	44358.3	-59.3		
150.0	47024.8	-65.5		
116.6	51993.2	-72.4		
100.0	54967.4	-70.4		
79.0	59632.5	-68.2		
70.0	62064.2	-62.3		
62.8	64297.1	-58.6		

STATION ALTITUDE 4395.50 FEET MSL
13 JULY 78
ASCENSION NO. 5

SIGNIFICANT LEVEL DATA
1940230005
SW 70
TABLE XI. (CONT)

GEODETIC COORDINATES
33.3688 LAT DEG
106.40406 LON DEG

PRESSURE	GEOMETRIC	TEMPERATURE	REL. HUM.	
MILLIBARS	ALTITUDE	AIR DEWPOINT	PERCENT	
	MSL FEET	DEGREES	CENTIGRADE	
50.0	69019.9	-59.4		
30.0	79760.5	-52.6		
21.5	86964.9	-47.4		

STATION ALTITUDE 4395.50 FEET MSL
13 JULY 78
ASCENSION NO. 5 0750 HRS MDT

UPPER AIR DATA
1940230005
SW 70
TABLE XII.

GEODETIC COORDINATES
33.3688A LAT DEG
106.40406 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS			
4395.5	868.6	27.0	11.9	39.0	1002.0	677.0		60.0	6.0	1.000282
4500.0	865.5	26.7	11.5	38.5	999.4	676.7		51.3	5.3	1.000280
5000.0	850.7	25.6	9.4	36.1	986.9	675.1		347.5	4.9	1.000270
5500.0	836.0	24.4	9.2	38.2	973.6	673.8		314.7	8.8	1.000267
6000.0	821.6	24.4	7.9	34.8	957.2	673.7		305.1	10.0	1.000259
6500.0	807.4	23.7	7.1	34.4	942.9	672.8		300.0	8.8	1.000254
7000.0	793.4	22.8	6.6	35.0	929.5	671.8		302.7	6.9	1.000249
7500.0	779.6	21.9	6.0	35.5	916.2	670.7		309.1	5.9	1.000245
8000.0	766.1	21.0	5.4	36.0	903.2	669.7		315.7	4.8	1.000241
8500.0	752.6	19.9	5.0	37.7	890.9	668.3		321.9	3.5	1.000237
9000.0	739.4	18.6	4.6	39.5	878.9	666.9		324.4	1.6	1.000234
9500.0	726.4	17.4	4.1	41.3	867.1	665.5		110.9	.3	1.000230
10000.0	713.6	16.2	3.7	43.1	855.5	664.1		113.9	1.6	1.000227
10500.0	701.0	15.0	3.1	44.9	844.0	662.7		102.6	2.2	1.000223
11000.0	688.2	13.8	2.5	46.4	832.2	661.2		84.0	2.3	1.000219
11500.0	675.6	12.6	1.9	48.0	820.6	659.8		187.5	.4	1.000215
12000.0	663.3	11.4	1.2	49.5	809.1	658.4		246.9	2.7	1.000211
12500.0	651.2	10.1	.5	51.1	797.8	656.9		252.4	5.1	1.000208
13000.0	639.3	8.9	-.2	52.6	786.7	655.5		254.0	6.0	1.000204
13500.0	627.6	7.7	-1.0	54.2	775.7	654.0		255.0	6.1	1.000200
14000.0	616.1	6.5	-1.7	55.7	765.0	652.6		247.9	5.7	1.000197
14500.0	604.8	5.3	-2.5	57.3	754.4	651.1		238.1	5.3	1.000193
15000.0	593.8	4.1	-3.2	58.8	743.9	649.6		218.1	4.4	1.000189
15500.0	582.9	2.9	-4.0	60.4	733.6	648.2		191.0	4.5	1.000186
16000.0	572.3	1.6	-4.9	61.9	723.5	646.7		169.6	6.0	1.000183
16500.0	561.8	.4	-5.7	63.5	713.5	645.2		163.7	7.5	1.000179
17000.0	551.3	-.8	-5.9	68.1	703.3	643.8		163.3	8.7	1.000177
17500.0	540.9	-2.0	-5.9	74.3	693.0	642.4		164.0	9.0	1.000175
18000.0	530.7	-3.2	-6.3	79.0	683.0	641.0		164.9	9.2	1.000172
18500.0	520.6	-4.4	-8.9	70.5	673.2	639.4		167.4	8.4	1.000166

STATION ALTITUDE 4395.50 FEET MSL
 13 JULY 78
 ASCENSION NO. 5 0750 HRS MDT
 UPPER AIR DATA
 1940230005
 SW 70
 TABLE XII. (CONT)
 GEODETIC COORDINATES
 33.36888 LAT DEG
 106.40406 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
19000.0	510.6	-5.6	72.6	663.5	637.9	169.6	8.6	1.000163
19500.0	500.8	-6.9	74.8	653.9	636.3	170.3	10.6	1.000160
20000.0	491.1	-8.1	77.4	644.3	634.9	172.3	12.1	1.000157
20500.0	481.6	-9.1	75.0	634.3	633.6	174.8	13.2	1.000154
21000.0	472.2	-10.1	71.0	624.4	632.4	183.2	11.2	1.000150
21500.0	463.0	-10.8	55.6	614.1	631.4	194.2	9.3	1.000145
22000.0	453.9	-11.7	61.3	604.1	630.3	202.0	7.7	1.000143
22500.0	445.0	-12.5	63.3	594.1	629.3	199.9	5.5	1.000141
23000.0	436.2	-13.2	58.2	583.9	628.5	172.2	3.2	1.000137
23500.0	427.5	-13.9	53.0	573.9	627.6	122.7	2.5	1.000134
24000.0	419.1	-14.5	47.9	564.0	626.8	82.1	2.9	1.000131
24500.0	410.8	-15.2	42.8	554.3	625.9	21.6	2.0	1.000128
25000.0	402.6	-15.9	37.7	544.8	625.1	339.4	3.3	1.000125
25500.0	394.6	-17.0	38.5	536.2	623.7	325.2	5.0	1.000123
26000.0	386.7	-18.2	42.5	528.1	622.2	326.8	5.8	1.000121
26500.0	378.8	-19.3	53.2	519.5	621.0	334.8	6.1	1.000120
27000.0	371.2	-20.3	61.4	511.0	619.7	352.3	5.4	1.000118
27500.0	363.6	-21.4	58.0	502.8	618.3	18.3	5.1	1.000116
28000.0	356.1	-22.5	54.7	494.7	616.9	34.5	5.6	1.000113
28500.0	348.8	-23.6	51.3	486.8	615.5	45.5	6.3	1.000111
29000.0	341.7	-24.8	47.9	479.0	614.1	48.7	6.2	1.000109
29500.0	334.6	-25.7	43.4	471.0	612.9	50.6	6.0	1.000107
30000.0	327.7	-26.5	37.1	462.7	611.9	55.9	5.8	1.000105
30500.0	320.8	-27.3	30.8	454.6	610.9	60.5	5.8	1.000103
31000.0	314.1	-28.4	27.6	447.0	609.6	62.1	6.2	1.000101
31500.0	307.5	-29.6	26.9	439.8	608.1	60.6	6.6	1.000099
32000.0	301.1	-30.8	26.1	432.7	606.5	57.0	6.9	1.000097
32500.0	294.6	-32.1	26.8	425.8	604.8	55.0	7.2	1.000096
33000.0	288.3	-33.5	27.8	419.0	603.1	54.1	7.6	1.000094
33500.0	282.1	-34.9	28.7	412.4	601.4	60.0	9.4	1.000092

STATION ALTITUDE 4395.50 FEET MSL
 13 JULY 78
 ASCENSION NO. 5

UPPER AIR DATA
 1940230005
 SW 70
 TABLE XII. (CONT)

GEODETIC COORDINATES
 33.36888 LAT DEG
 106.40406 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES (TN)	SPEED KNOTS	
34000.0	276.0	-36.3	29.7	405.9	599.6	66.2	12.2	1.000091
34500.0	270.1	-37.7	30.7	399.5	597.9	65.7	13.7	1.000089
35000.0	264.2	-39.0	24.4**	393.0	596.2	62.9	14.5	1.000088
35500.0	258.4	-40.2	14.5**	386.4	594.6	59.2	12.7	1.000086
36000.0	252.7	-41.5	4.7**	380.0	593.0	52.6	9.5	1.000085
36500.0	247.0	-42.7		373.5	591.3	51.6	6.8	1.000083
37000.0	241.4	-44.0		367.0	589.7	58.4	4.4	1.000082
37500.0	235.9	-45.2		360.6	588.1	47.6	4.0	1.000080
38000.0	230.5	-46.5		354.3	586.5	31.2	4.0	1.000079
38500.0	225.3	-47.7		348.2	584.9	8.7	5.0	1.000078
39000.0	220.2	-49.0		342.2	583.3	3.9	6.0	1.000076
39500.0	215.2	-50.2		336.2	581.6	7.9	6.8	1.000075
40000.0	210.3	-51.5		330.4	580.0	15.0	7.0	1.000074
40500.0	205.5	-52.7		324.7	578.4	23.5	7.0	1.000072
41000.0	200.8	-54.0		319.2	576.7	26.3	6.5	1.000071
41500.0	196.1	-54.8		312.9	575.6	27.7	6.1	1.000070
42000.0	191.4	-55.6		306.6	574.6	19.6	6.9	1.000068
42500.0	186.9	-56.4		300.4	573.5	13.7	7.8	1.000067
43000.0	182.5	-57.2		294.4	572.5	17.4	8.0	1.000066
43500.0	178.2	-58.0		288.4	571.5	20.8	8.4	1.000064
44000.0	174.0	-58.7		282.6	570.4	43.3	7.2	1.000063
44500.0	169.8	-59.6		277.1	569.3	69.6	7.5	1.000062
45000.0	165.7	-60.8		271.8	567.7	84.0	7.7	1.000061
45500.0	161.7	-62.0		266.7	566.2	95.3	8.0	1.000059
46000.0	157.7	-63.1		261.6	564.6	100.4	7.2	1.000058
46500.0	153.9	-64.3		256.7	563.0	101.8	5.4	1.000057
47000.0	150.2	-65.4		251.9	561.5	97.5	3.8	1.000056
47500.0	146.4	-66.2		246.4	560.5	72.3	2.6	1.000055
48000.0	142.8	-66.9		241.1	559.6	45.1	2.6	1.000054
48500.0	139.2	-67.5		235.8	558.6	47.2	3.5	1.000053

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4395.50 FEET MSL
 13 JULY 78
 ASCENSION "0. 5 0750 HRS MDT

UPPER AIR DATA
 1940230005
 SW 70

GEODETIC COORDINATES
 33.36888 LAT DEG
 106.40406 LON DEG

TABLE XII. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
49000.0	135.7	-68.2		230.7	557.7	51.2	4.2	1.000051
49500.0	132.3	-68.9		225.7	556.7	63.4	4.3	1.000050
50000.0	129.0	-69.6		220.8	555.8	72.1	4.7	1.000049
50500.0	125.8	-70.3		216.0	554.8	63.9	5.4	1.000048
51000.0	122.6	-71.0		211.3	553.9	57.6	6.2	1.000047
51500.0	119.6	-71.7		206.8	552.9	73.4	8.0	1.000046
52000.0	116.6	-72.4		202.3	552.0	83.6	10.2	1.000045
52500.0	113.6	-72.1		196.8	552.4	101.1	12.2	1.000044
53000.0	110.7	-71.7		191.5	552.9	115.2	15.1	1.000043
53500.0	107.9	-71.4		186.4	553.4	127.8	15.2	1.000041
54000.0	105.2	-71.1		181.3	553.8	143.4	14.4	1.000040
54500.0	102.5	-70.7		176.5	554.3	160.9	14.0	1.000039
55000.0	99.9	-70.4		171.7	554.7	180.6	14.2	1.000038
55500.0	97.4	-70.2		167.2	555.1	196.1	14.4	1.000037
56000.0	95.0	-69.9		162.8	555.4	208.5	10.7	1.000036
56500.0	92.6	-69.7		158.6	555.7	231.7	7.8	1.000035
57000.0	90.3	-69.4		154.4	556.0	317.2	3.2	1.000034
57500.0	88.0	-69.2		150.4	556.3	14.7	10.4	1.000033
58000.0	85.8	-69.0		146.4	556.7	33.9	16.0	1.000033
58500.0	83.7	-68.7		142.6	557.0	55.2	20.5	1.000032
59000.0	81.6	-68.5		138.9	557.3	68.7	24.4	1.000031
59500.0	79.5	-68.3		135.2	557.6	85.0	22.6	1.000030
60000.0	77.6	-67.3		131.3	558.9	101.8	22.5	1.000029
60500.0	75.7	-66.1		127.3	560.6	111.3	20.0	1.000028
61000.0	73.8	-64.9		123.5	562.2	122.9	18.3	1.000027
61500.0	72.0	-63.7		119.7	563.9	119.4	18.8	1.000027
62000.0	70.2	-62.5		116.1	565.5	114.0	19.8	1.000026
62500.0	68.5	-61.6		112.8	566.7	110.9	19.9	1.000025
63000.0	66.9	-60.7		109.7	567.8	109.0	19.5	1.000024
63500.0	65.3	-59.9		106.7	568.9	107.6	18.9	1.000024

STATION ALTITUDE 4395.50 FEET MSL
13 JULY 78
ASCENSION NO. 5 0750 HRS MDT

UPPER AIR DATA
1940230005
SW 70
TABLE XII. (CONT)

GEODETIC COORDINATES
33.36888 LAT DEG
106.40406 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
64000.0	63.7	-59.1		103.7	570.0	108.4	17.9	1.000023
64500.0	62.2	-58.6		101.0	570.6	109.3	16.9	1.000022
65000.0	60.7	-58.7		98.6	570.5	103.0	15.4	1.000022
65500.0	59.3	-58.8		96.3	570.4	92.6	14.0	1.000021
66000.0	57.8	-58.9		94.0	570.3	82.1	13.4	1.000021
66500.0	56.5	-59.0		91.8	570.1	74.2	13.4	1.000020
67000.0	55.1	-59.1		89.7	570.0	66.4	13.6	1.000020
67500.0	53.8	-59.1		87.6	569.9	70.2	15.0	1.000020
68000.0	52.5	-59.2		85.5	569.8	73.8	16.5	1.000019
68500.0	51.3	-59.3		83.5	569.7	77.6	18.6	1.000019
69000.0	50.0	-59.4		81.6	569.6	80.9	21.1	1.000018
69500.0	48.9	-59.1		79.5	570.0	83.5	23.1	1.000018
70000.0	47.7	-58.8		77.6	570.4	86.0	23.7	1.000017
70500.0	46.6	-58.5		75.6	570.8	88.3	24.3	1.000017
71000.0	45.5	-58.1		73.7	571.2	90.3	24.2	1.000016
71500.0	44.4	-57.8		71.9	571.7	92.4	24.0	1.000016
72000.0	43.4	-57.5		70.1	572.1	93.8	24.2	1.000016
72500.0	42.4	-57.2		68.4	572.5	94.6	24.7	1.000015
73000.0	41.4	-56.9		66.6	572.9	95.1	25.2	1.000015
73500.0	40.4	-56.6		65.0	573.3	93.4	25.3	1.000014
74000.0	39.5	-56.2		63.4	573.8	91.7	25.5	1.000014
74500.0	38.5	-55.9		61.8	574.2	88.5	26.1	1.000014
75000.0	37.6	-55.6		60.2	574.6	84.9	27.0	1.000013
75500.0	36.7	-55.3		58.7	575.0	82.4	27.9	1.000013
76000.0	35.9	-55.0		57.3	575.4	81.7	28.7	1.000013
76500.0	35.0	-54.7		55.9	575.8	81.2	29.5	1.000012
77000.0	34.2	-54.3		54.5	576.3	80.9	30.9	1.000012
77500.0	33.4	-54.0		53.1	576.7	80.7	32.3	1.000012
78000.0	32.6	-53.7		51.8	577.1	81.1	34.0	1.000012
78500.0	31.9	-53.4		50.5	577.5	82.1	36.0	1.000011

STATION ALTITUDE 4395.50 FEET MSL
 13 JULY 78
 ASCENSION NO. 5

UPPER AIR DATA
 1940230005
 SW 70
 TABLE XII. (CONT)

GEODETIC COORDINATES
 33.36888 LAT DEG
 106.40406 LONG DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND		WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			KNOTS	KNOTS	DIRECTION DEGREES(TN)	SPEED KNOTS	
79000.0	31.1	-53.1			49.2	577.9		82.9	38.0	1.000011
79500.0	30.4	-52.8			48.0	578.3		87.2	38.1	1.000011
80000.0	29.7	-52.4			46.8	578.8		91.7	38.2	1.000010
80500.0	29.0	-52.1			45.7	579.3		94.8	37.9	1.000010
81000.0	28.3	-51.7			44.6	579.7		95.8	36.4	1.000010
81500.0	27.7	-51.3			43.5	580.2		96.9	35.0	1.000010
82000.0	27.0	-51.0			42.4	580.7		95.6	35.1	1.000009
82500.0	26.4	-50.6			41.4	581.1		93.7	35.5	1.000009
83000.0	25.8	-50.3			40.4	581.6		92.2	36.0	1.000009
83500.0	25.2	-49.9			39.4	582.1		92.0	35.9	1.000009
84000.0	24.7	-49.5			38.4	582.6		91.9	35.9	1.000009
84500.0	24.1	-49.2			37.5	583.0		91.8	35.5	1.000008
85000.0	23.5	-48.8			36.6	583.5		91.7	34.9	1.000008
85500.0	23.0	-48.5			35.7	584.0		91.6	34.4	1.000008
86000.0	22.5	-48.1			34.8	584.4				1.000008
86500.0	22.0	-47.7			33.9	584.9				1.000008

STATION ALTITUDE 4395.50 FEET MSL
13 JULY 78
ASCENSION NO. 5

0750 HRS MDT

MANDATORY LEVELS
1940230005
SW 70
TABLE XIII.

GEODETIC COORDINATES
33.36888 LAT DEG
106.40406 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	5019.	25.5	9.3	36.	345.3	5.0
800.0	6761.	23.3	6.8	35.	301.2	7.8
750.0	8597.	19.6	4.9	38.	323.6	3.3
700.0	10530.	14.9	3.1	45.	101.2	2.2
650.0	12572.	10.0	.4	51.	252.9	5.5
600.0	14738.	4.8	-2.8	58.	229.1	4.8
550.0	17044.	-.9	-5.9	69.	163.2	8.8
500.0	19516.	-7.0	-10.7	75.	170.3	10.7
450.0	22187.	-12.1	-17.5	64.	206.4	7.1
400.0	25122.	-16.1	-27.7	36.	333.8	3.8
350.0	28374.	-23.5	-30.5	52.	43.7	6.2
300.0	32020.	-31.0	-44.1	26.	56.5	6.9
250.0	36163.	-42.1			49.5	8.2
200.0	40986.	-54.2			26.7	6.4
175.0	43770.	-58.5			36.3	7.4
150.0	46899.	-65.5			97.3	3.8
125.0	50494.	-70.5			62.3	5.6
100.0	54820.	-70.4			179.2	14.1
80.0	59190.	-68.3			80.1	22.9
70.0	61854.	-62.3			113.6	19.9
60.0	65013.	-58.8			98.7	14.7
50.0	68764.	-59.4			80.8	21.1
40.0	73379.	-56.4			92.9	25.4
30.0	79423.	-52.6			89.3	38.1
25.0	83313.	-49.8			92.0	35.9

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.